at very varied temperatures, and of very varied compositions, and it demonstrated that the further course of the same was to a certain extent iniluenced by variation of hoth conditions mentioned. With high temperature, or high silicon content of the metal, the action was more intense, and was able to become so violent with a rapid stream of iron, thai, the metal in the ladle boiled so violently that ono must IV a r losses owing to ejection of materials. In such casos the instreaming of pig iron was brought down to moderation, or to a- total stoppage for a moment, whereby the lighter slag forthwith rose to the upper surface, so that mutual contact with larger quantities of materials ceased, and thus the action came to an end. By renewal of the stream of iron one could again restart the reaction. After the filling of the hullo the metal and slag separated, so that the latter solidified rapidly on the upper surface, and was thus rendered inactivo on the metal.
The following results of analyses furnish information an to the mutual reactions :• —
TABLH T.
1.
(St. &
(St. & K.,
Blast FYo
Blast FY.o Ladlo . Blast KYo Ijiidlct . Blast KYo
IVr
I'lMJl..
O'SljO'l I
MM
IVr
()-.i<j()';jls!o-o;ii;f'';
IJ'rjOO'KSjO'-MJi.'J'iKJl [)-«I2
*"
ilnm.
Similar results w(»r(i obtained in all <ocpr'niwmtHf wharnin the temperatures of the moltc^n iron employed lav 1,108° and 1,389° estimated hy tlui Wannor pyn^iHitci perceiven that within thorns temperaf.urt'K the rx reactions had decidedly the premiums of the t»iuiothc»,rmie reactions, in that enpecially «ilicoii and njtangun«.iso